

REMARKS

The application includes claims 1-30 prior to entering this amendment.

The examiner rejects claims 1, 5-6, 8-9, 11, 15-16, 18-19, 21, 25-26, and 28-29 under 35 U.S.C. § 103(a) as being unpatentable over Young et al. (U.S. Patent 6,600,754) in view of Morris et al. (U.S. Patent Application Publication 2002/0046381) and Ho et al (U.S. Patent 7,039,032).

The examiner rejects claims 2, 7, 10, 12, 17, 20, 22, 27, and 30 under 35 U.S.C. § 103(a) as being unpatentable over Young in view of Morris and Ho in further view of Kamel et al. (U.S. Patent 6,374,103).

The examiner rejects claims 3, 4, 13-14, and 23-24 under 35 U.S.C. § 103(a) as being unpatentable over Young in view of Morris and Ho with Kamel in further view of Cohen (U.S. Patent 6,332,153).

The applicant amends claims 1, 5, 11, 15, and 25.

The application remains with claims 1-30 after this amendment.

The applicant adds no new matter and request reconsideration.

Claim Rejections Under § 103

The examiner rejects claims 1, 5-6, 8-9, 11, 15-16, 18-19, 21, 25-26, and 28-29 as being obvious over Young in view of Morris and Ho.

Young discloses managing communication resources between nodes in a network.¹ A node, e.g., node 1 of figure 1, may transmit a frame to its neighboring node, e.g., nodes 3-8, and such a frame may include a reservation/standby slot 50 of figure 5.² When a reservation slot is not used, it acts as a standby slot.³ If a node recognized that it will not need its standby slot in the upcoming frame, it announces its availability in the bootstrap packet (StandbyFree) at the beginning of the frame so that another neighboring node transmits during that slot.⁴

Unlike Young, which disclose communication between neighboring nodes, the current application recites a communication between an access point and a plurality of peripheral stations, e.g., the access point 320 and the peripheral stations 340 and 350 shown in figure 3. A first peripheral device, e.g., peripheral station 340, is assigned a first time window to communicate with the access point and a second peripheral device, e.g., peripheral

¹ Young, abstract.

² Young, Figures 3 and 4 and column 7, lines 5-7.

³ Young, column 7, lines 24-25.

station 350, is assigned a second time window (which begins after the end of the first time window) to communicate with the access point. In case the first peripheral device completes its transmission with the access point before the end of the first time window, the access point transmits a rescheduling frame that starts the second time window immediately (i.e., before the scheduled end of the first time window). The second device, at the start of the second time window, starts communicating with the access point. Also, the first and the second peripheral devices may not communicate with each other due to a physical obstruction that may prevent such communication.⁵ It is, thus, imperative that the access point (and not the first peripheral device) transmit the rescheduling frame to the second peripheral device. That is, the disclosed rescheduling frame is transmitted by a centralized device, e.g., the access point, which has communication access to all the peripheral devices, including the first and the second peripheral device. Young, on the other hand, teaches that any individual node may itself announce an availability of its unused slots.⁴

Firstly, claim 1 recites *a processor... adapted to: ... wirelessly exchange data with the first peripheral device during the first time window... and ...wirelessly exchange data with the second peripheral device before the first time window ends pursuant to the rescheduling frame.* Claims 5, 11, 15, and 25 include similar limitations. The recited device, for example, may be the access point 320 of figure 3 and the recited first and second peripheral devices may be the peripheral stations 340 and/or 350. The examiner appears to allege that Young's nodes disclose the recited device, the first peripheral device and the second peripheral devices. Assuming, *arguendo*, one of the nodes (say, node A) discloses the recited device, then to disclose the recited limitation, node A has to wirelessly communicate with a second node (say, node B) during a first time frame and before the end of the first time frame, wirelessly communicate with a third node (say, node C) during a second time frame. But while communicating with node B during a first time frame, if the node A determines that it will not need its standby slot, then node A will announce that its standby slot is free and some other node (say node D) will use that standby slot next. That is, during a second time frame, node D (and not node A) will use node A's standby slot. Put differently, if node A, while communicating during a first time frame, determines that its standby slot is to be free, then during a second time frame, some other node (e.g., node D, but not node A) will use that standby slot. In contrast, the limitation recites that the device communicates with a first peripheral device and a second peripheral device in a first and a second time window

⁴ Young, column 13, lines 15-19.

respectively. Young has failed to identify a node that communicates both during a first time window and a second time window, as would be required by claims 1, 5, 11, 15, 21, and 25.

Secondly, claim 1 recites that *the first peripheral device and the second peripheral device are not configured to transmit a rescheduling frame*. Claims 5, 11, 15, and 25 include similar limitations. The examiner alleges that Young's nodes, e.g., nodes 1... 8 of figure 3, disclose the recited first and second peripheral device. In Young, a node may announce the availability of its standby slot 50;⁴ the examiner appears to allege that this announcement discloses the recited rescheduling frame. Each individual node of Young, however, may transmit such an announcement. In contrast, the limitation recites that the first and second peripheral devices *are not configured to transmit a rescheduling frame*.

Thirdly, claim 1 recites *wirelessly transmit a rescheduling frame in response to the wireless data exchange with the first peripheral device completing before the designated end time occurs*. Claims 5, 11, 15, 21, and 25 include similar limitations. Young's individual nodes, e.g., nodes 1... 8 of figure 3, transmit a frame that may include a reservation/ standby slot 50.² "If a node knows that in the upcoming frame it is not going to need its standby slot, it could announce this fact in the bootstrap packet (StandbyFree) at the beginning of the frame so that another node could transmit in that slot if needed." That is, a node may announce the availability of a standby slot in an upcoming frame at the beginning of the frame. And this announcement is done with a prior knowledge that a standby slot in the upcoming frame to be transmitted is not required. In contrast, the recited rescheduling frame is transmitted *in response to the wireless data exchange with the first peripheral device completing before the designated end time occurs*.

Fourthly, claim 1 recites *where the first peripheral device and the second peripheral device do not directly wirelessly communicate with each other*. Claims 5, 11, 15, 21, and 25 include similar limitations. Young's individual nodes e.g., nodes 1... 9 of figure 1, may wirelessly communicate with their neighbor and a node may use only a neighbor node's standby slot.⁶ That is, if a first node (say node 1 of figure 1) uses a standby slot of a second node (say node 6), then the first and the second nodes must be neighbors and have the capability to communicate wirelessly with each other. In contrast, even though the recited second peripheral device uses the unused first time window of the first peripheral device, *the first peripheral device and the second peripheral device do not directly wirelessly*

⁵ Specification, page 5, lines 11-15 and figure 1.

⁶ Young, column 13, line 27.

communicate with each other, but rather communicate with the recited device (e.g., access point 320 of figure 3).

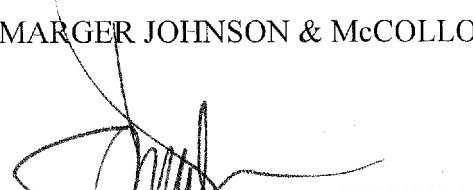
For at least these reasons, independent claims 1, 5, 11, 15, 21, and 25 should be in condition for allowance, along with all the associated dependent claims.

Conclusion

The applicant requests reconsideration and allowance of all remaining claims. The applicant encourages the examiner to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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